

Claims

1. A method for treating an atopic condition, comprising
administering to a subject in need of treatment of an atopic condition an
5 immunostimulatory nucleic acid, comprising:

5' X₁CGX₂ 3'

wherein the immunostimulatory nucleic acid includes at least 8 nucleotides and wherein C is unmethylated and wherein X₁ and X₂ are nucleotides, in an effective amount to treat the atopic condition.

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2. The method of claim 1, wherein the atopic condition is atopic dermatitis.
3. The method of claim 1, wherein X₁ is selected from the group consisting of A, G, and T, and wherein X₂ is selected from the group consisting of C and T.

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4. The method of claim 1, further comprising administering to the subject an allergen in conjunction with the administering of the immunostimulatory nucleic acid.

5. The method of claim 1, wherein the immunostimulatory nucleic acid comprises

5' X₁X₂CGX₃X₄ 3'

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wherein C is unmethylated and wherein X₁, X₂, X₃, and X₄ are nucleotides.

6. The method of claim 5, wherein X₁X₂ is selected from the group consisting of GpT, GpG, GpA and ApA.

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7. The method of claim 5, wherein X₃X₄ is selected from the group consisting of TpT and CpT.

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8. The method of claim 5, wherein X₁X₂ is selected from the group consisting of GpT, GpG, GpA and ApA and wherein X₃X₄ is selected from the group consisting of TpT and CpT.

9. The method of claim 5, wherein 5' X₁X₂CGX₃X₄ 3' is not a palindrome.
10. The method of claim 5, wherein the immunostimulatory nucleic acid comprises a sequence selected from the group consisting of
- 5 TCCATGTCGGTCCTGATGCT (SEQ ID NO:37),
TCCATGCCGGTCCTGATGCT (SEQ ID NO:38),
TCCATGGCGGTCCCTGATGCT (SEQ ID NO:39),
TCCATGACGGTCCTGATGCT (SEQ ID NO:40),
TCCATGTCGCTCCTGATGCT (SEQ ID NO:42),
- 10 TCCATGTCGTTCCCTGATGCT (SEQ ID NO:43),
TCCATGACGTTCCCTGATGCT (SEQ ID NO:44), and
TCCATAACGTTCCCTGATGCT (SEQ ID NO:45).
- 15 11. The method of claim 1, wherein the immunostimulatory nucleic acid is a synthetic nucleic acid molecule.
12. The method of claim 1, wherein the immunostimulatory nucleic acid is 8 to 100 nucleotides in length.
- 20 13. The method of claim 1, wherein the immunostimulatory nucleic acid is 8 to 40 nucleotides in length.
14. The method of claim 1, wherein the immunostimulatory nucleic acid is a stabilized nucleic acid molecule.
- 25 15. The method of claim 14, wherein the immunostimulatory nucleic acid includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.
- 30 16. The method of claim 1, wherein the immunostimulatory nucleic acid is administered to the subject orally.

17. The method of claim 1, wherein the immunostimulatory nucleic acid is administered to the subject transdermally.

18. The method of claim 1, wherein the immunostimulatory nucleic acid is administered
5 to the subject by injection.